ABSTRACTS

This section of the JOURNAL *is published in collaboration with the two abstracting Journals,* ABSTRACTS OF WORLD MEDICINE *and* OPHTHALMIC LITERATURE, *published by the British Medical Association. The abstracts are divided into the following sections : Syphilis (Clinical, Therapy, Serology, Pathology, Experimental), Gonorrhoea, Non-Gonococcal Urethritis and Allied Conditions, Chemotherapy, Public Health and Social Aspects, Miscellaneous. After each subsection of abstracts follows a list of articles that have been noted but not abstracted. All subsections will not necessarily be represented in each issue.*

SYPHILIS (Clinical)

Aortic Electrokymogram in Normal Subjects and Patients with Syphilitic Aortic Insufficiency. BRANDFONBRENER, M., and EISENBERG, H. (1954). *Amer. Heart J.* 3 figs, 13 refs.

Aortic electrokymographic tracings were taken at various points along the aorta in sixty normal subjects and were compared with similar tracings from 33 patients with syphilitic aortic incompetence. Records were made of the ascending aorta in the postero-anterior and left anterior oblique positions and of the aortic knob in the former position. The records from the two groups differed to a fairly marked degree in contour—for example, a rapidly rising curve with " systolic collapse " was frequently noted in the ascending aortic records from patients with aortic incompetence, and an indistinct dicrotic notch was more common than in those from normal subjects—and to a lesser degree in the time relations of the various phases. However, no feature characteristic of aortic incompetence was found which invariably occurred in this condition and in no other condition.

It is concluded that " as a clinical method in studying the aorta, the electrokymogram would seem to be extremely limited. As a physiologic tool, it is crude and certainly would benefit from improvements that would permit calibration for comparison of amplitudes ".

William A. R. Thomson

Painful Aortitis. (Des aortites douloureuses.) ROUBIER, C. (1954). *J. Méd. Lyon*, **35**, 741. 7 refs.

About one-third of all cases of syphilitic aortitis are reported to be accompanied by pain of an anginal type, this being usually attributed to fibrotic obliteration of the coronary orifices. Coronary arterial affection, however, does not explain all the cases and the author discusses this problem with special reference to thirty cases of syphilitic aortitis seen by him at Lyons since 1928 in which a detailed histological examination of the heart and great vessels was carried out. The clinical, post-mortem, and histological findings in each case are briefly detailed.

In thirteen cases (six male and seven female) pain was present during the course of the illness, but was absent throughout in seventeen cases (twelve male and five female) ; the age range (42 to 72 yrs) was approximately the same in the two groups. A fatal termination supervened somewhat earlier in cases in which there was pain, treatment (in the pre-penicillin era) with mercury and bismuth having little effect on the course. In general, pain when it occurred was the presenting symptom and usually persisted until death. In a few cases, however, there was a gradual diminution in the frequency and intensity of the pain during the course of the disease. Two types of pain are described :

(1) The classic angina occurring on effort, with typical radiation and relieved by trinitrin ;

(2) An atypical anginal pain, usually more severe than (1), often abdominal in site and radiating to the scapulae but never to the arms, occurring at rest, and not relieved by trinitrin.

The pathological changes in these cases are described and their role in the causation of pain discussed. Thus it was found that obliteration of the coronary ostia occurred in thirteen cases, among which, however, only seven patients complained of pain, two of these having typical angina and five the atypical type of pain. Lesions of the coronary arteries themselves, as well as cardiac lesions and obliteration of the origin of the intercostal arteries, were similarly inconstant findings. As to the role of lesions of the aorta itself, it was observed that where painful aortitis occurred there was an intense local inflammatory reaction, with a marked peri-aortitis involving the peri-aortic nervous plexus. In contrast, in the painless group aortic lesions were confined to the media or made only slight encroachment on the adventitia From this the author, although not denying the importance of involvement of the coronary arteries in producing pain in aortitis, concludes that the existence of an inflammatory peri-aortitis must nevertheless be regarded as a causal factor in some cases.

Benjamin Schwartz

Tabetic Charcot's Spine. Report of Eight Cases. CAMPBELL, D. J., and DOYLE, J. O. (1954). *Brit. med. J.*, **1**, 1018. 1 fig., 4 refs.

Tabetic arthropathy of the spine was first described by Charcot in 1868, but few cases have been recorded in the

recent literature. In reporting eight cases from hospitals in the Sheffield area, the present authors suggest that the condition is commoner than is generally supposed.

All but one of the patients were male, and their ages ranged from 40 to 68, the majority being in the 50's. The first patient complained of severe abdominal pain and delayed micturition for 12 months; he showed typical signs of tabes and had been treated for syphilis 15 yrs previously, but the Wassermann and Kahn reactions of his blood were negative. *X* rays showed considerable destruction of L 2 and 3, with separation of the fragments and new bone formation. The cerebrospinal fluid (C.S.F.) gave a positive Wassermann reaction. In spite of treatment with penicillin, arsenic, and bismuth, Charcot's disease of the right foot developed.

In the second case typical signs of tabes appeared in 1948, when the Wassermann and Kahn reactions were positive. Penicillin, tryparsamide, and bismuth gave little relief, and in 1952 pain developed in the lumbar region, *x* rays showing gross destruction of L 3 and 4.

The third patient had complained of shooting pains in the legs for 20 yrs and had been treated for syphilis in 1929. Although both blood and C.S.F. gave negative serological reactions, typical signs of tabes were present. He was treated with penicillin, arsenic, and bismuth without effect on the pain, and eventually forward displacement of L 4 was demonstrated radiologically.

The fourth and only female patient also complained of shooting pains in the legs of 9 months' duration. She had typical signs of tabes, and the C.S.F. showed an increase in cell count and protein content, with a Lange curve of 3221000000 (Wassermann reaction was not performed). *X* rays showed increased lumbar lordosis, scoliosis, subluxation of L 4 with new bone formation, and sclerosis L 3, 4, and 5.

The fifth patient had a gumma of the right testis and typical signs of tabes, although the Wassermann and Kahn reactions were doubtful. *X* rays showed scoliokyphosis and bone destruction and proliferation in L 3, 4, and 5, and he later developed a perforating ulcer of the foot. This was apparently a case of congenital Charcot's disease, as there was a parental history of syphilis and four brothers and three sisters had died in early childhood.

The sixth patient had a spontaneous fracture of the left femur in 1952, when *x* rays showed arthritic changes in the lumbar spine suggestive of Charcot's disease. The Wassermann and Kahn reactions were positive and there were typical signs of tabes, although the C.S.F. was essentially normal. He had received antisyphilitic treatment in 1918.

The seventh and eighth patients also had typical signs of tabes, the Wassermann and Kahn reactions gave positive results, and *x* rays showed in one case scoliosis with much sclerosis of the lumbar vertebrae, and in the other much bone destruction and new bone formation in the lower lumbar spine, although clinically there was no deformity.

The deductions to be drawn from the above are that since Charcot's disease does not appear to be uncommon, patients with persistent shooting pains should always undergo *x*-ray examination of the spine. The treatment consists in antisyphilitic therapy (which appears to have little effect) and support for, and immobilization of, the spine. *T. E. Osmond*

Occurrence of Malignant Disease in Syphilitic Individuals. ROSAHN, P. D. (1954). *Amer. J. Syph.*, **38**, 413. 8 refs.

The incidence of malignant disease at necropsy in 276 persons with syphilis, as diagnosed from historical, clinical, laboratory, or post-mortem evidence, is compared with that in two control groups of 355 and 353 non-syphilitic subjects drawn at random from the same series of 3,907 necropsies on persons of 20 yrs or more performed in the Department of Pathology of Yale University between 1917 and 1941. It was found that malignant disease in general, without regard to type or primary site, occurred no more frequently in syphilitic than in non-syphilitic individuals. There was some evidence, however, that in syphilitic persons with malignant disease the primary lesion is located in the tongue more frequently than in non-syphilitic persons with malignant disease, and also that carcinoma of the cervix is more common among syphilitic than among non-syphilitic women with cancer, but in neither case was the number of patients sufficient to permit any valid conclusion to be drawn. *V. E. Lloyd*

Prevention of Congenital Syphilis. MORTON, R. S. (1954). *Brit. med. J.*, **1**, 1470. 9 refs.

The author points out that although congenital syphilis is now regarded as almost entirely preventable, its incidence in England and Wales is still alarmingly high. The best hope for eradication of the disease lies in detection of unsuspected cases by routine Wassermann tests during the antenatal period. While this is carried out in most organized antenatal clinics in Britain, many cases still go undetected as general practitioners responsible for the supervision of pregnancy rarely see that the test is performed; in one area the test was carried out in only 3 per cent. of the cases for the care of which general practitioners were remunerated by the local executive council.

In Stockport County Borough 42 cases of previously undetected antenatal syphilis were referred to the venereal diseases clinic in the years 1947–52. The treatment given, the social problems involved, and the post-partum progress and care of both mother and child are described. The importance of an examination of the patient's family and the wisdom of frank discussion concerning the nature of the condition and its consequences are emphasized. The higher miscarriage and stillbirth rates in pregnancies before treatment was given compared with the rates in subsequent pregnancies was in line with the findings of other workers.

[Although there is nothing new in this paper it may remind those undertaking obstetric work of their duty in the campaign to prevent congenital syphilis.]

Douglas J. Campbell

Clinical and Statistical Review of Late and Unsuspected Syphilis among Patients admitted to a Medical Unit in a Five-year Period (1948–1952). (Rilievi clinico-statistici e terapeutici sulla sifilide tardiva ed ignorata tra i degenti accolti in cinque anni (1948–1952) in un reparto di medicina.) RICCI, G. C. (1954). *Clin. terap.* (*Roma*), **7**, 91. Bibl.

From the Ospedali Riuniti, Leghorn, the author presents a statistical analysis of 136 cases of late or unsuspected syphilis detected between 1948 and 1952 among a total of 3,873 patients admitted to hospital in the 5 yrs ; the annual incidence, the sex incidence, and the clinical presentation (whether cardiovascular, nervous, or other) are statistically discussed and presented in tables, while the age on diagnosis and the social status of the patients are also considered. In the male, syphilis is more likely to affect the cardiovascular and respiratory systems, the gastro-intestinal tract, and the central nervous system ; in the female, the biliary apparatus, the kidneys, and the peripheral nervous system are mainly affected. The author regards it as probable that the number of unknown marital infections is more than twice the number of the known marital infections.

The relation between the serum and the cerebrospinal fluid (C.S.F.) reactions to various tests for syphilis is considered in detail for four clinical groups—cardiovascular, nervous, a mixture of these two, and a miscellaneous group. Of the 136 patients, 86 were sero-positive and 36 C.S.F.-positive ; in only eleven cases did both the serum and C.S.F. give a positive reaction. The usefulness of the flocculation reaction in recognizing latent and late stages of the disease is confirmed.

It has been the author's experience that in cases with a persistent negative serological result but a positive clinical history a detailed clinical examination of the patient, especially a neuro-psychiatric examination, will often reveal positive signs.

In respect of treatment, most stress is laid on penicillin. Anaphylactic reactions due to penicillin may resemble Herxheimer reactions, but the author believes that the former occur more frequently in cardiovascular cases, whereas the Herxheimer reaction is more common in neurosyphilis. It is suggested that the Wassermann reaction should be performed as a routine on all patients admitted to hospital. *Ferdinand Hillman*

Argyll Robertson Pupil following Herpes Zoster Ophthalmicus : with Remarks on the Efferent Pupillary Pathways. NAQUIN, H. A. (1954). *Amer. J. Ophthal.*, **38**, 23. 2 figs, 29 refs.

The author reports a case of herpes ophthalmicus observed some years later to have developed a unilateral pupillary rigidity to light but not to accommodation, the pupil being small and not dilating well with atropine. Similar cases in the literature are cited and the existence of this unilateral condition is offered as strong evidence that the site of the lesion in the Argyll Robertson pupil must be in the efferent part of the reflex arc. The symmetrical distribution in syphilis leaves doubt as to the exact site, but in herpes both this unilaterality and the known presence of local lesions of efferent nerves are strong evidence that there may be separate efferent pathways for the light and for the accommodation reflexes. *J. E. M. Ayoub*

Significance of the Unilateral Argyll Robertson Pupil. I. A. Report of 13 Cases. APTER, J. T. (1954). *Amer. J. Ophthal.*, **38**, 34. 2 tables, 2 figs, 61 refs.

Out of 135 neurosyphilitic patients examined, thirteen had this sign on one side only, though a further fourteen had a pupil completely rigid to all stimulation. In no case, however, was the contralateral pupil completely normal. Abnormalities of the iris were found in each case. In all cases the light reflex was observed after the affected pupil had been dilated with cocaine. These points suggest that the lesion must be in the region of the iris and not in the midbrain. The slit lamp was used in this work as being the most accurate method of examination. *J. E. M. Ayoub*

Argyll Robertson Pupil. (Le signe d'Argyll Robertson.) ROUQUES, L. (1954). *Presse méd.*, **62**, 1058.

A discussion on the diagnostic value of the Argyll Robertson pupil. The dissociation of the pupillary reflex with a dilated pupil is seen in several neurological conditions. When it is associated with miosis it is almost pathognomonic of syphilis. *S. Vallon*

Remarks on Palich-Szántó's Case of Syphilitic Allergic Iritis. (Einige Anmerkungen zu dem Fall Palich-Szántó : luetisch-allergische Regenbogenhautentzündung.) HANSEN, K. (1954.) *Klin. Mbl. Augenheilk.*, **124**, 736.

Hansen does not believe in non-specific sensitization and is of opinion that the iritis in the case published by Palich-Szántó (*Klin. Mbl. Augenheilk.*, 1953, **123**, 734) is due to specific allergy against egg proteins.

H. Lytton

Syphilis in Pregnancy. MORTON, J. H. (1955). *Guy's Hosp. Gaz.*, **49**, 10. 3 refs.

Follow-up of Infants Born of Treated Syphilitic Mothers. FORD, D., and GOLDFARB, A. A. (1954). *J. Pediat.*, **45**, 307. 7 refs.

Clinical Study of Juvenile Neurosyphilis. (Considerazioni cliniche in tema di neurolue infantile.) GOMIRATO, G., and GOMIRATO SANDRUCCI, M. (1954). *Minerva pediat.* (*Torino*), **6**, 613. Bibl.

Neurosyphilis. (Neurolues.) SONNE, L. M. (1954). *Nord. Med.*, **52**, 1291. Bibl.

Syphilis of the Stomach. Report of a Case. TUOHY, E. L. (1954). *Minn. Med.*, **37**, 808. 9 refs.

Keratoderma Punctatum Syphiliticum : Report of a Case. KERDEL-VEGAS, F., KOPF, A. W., and TOLMACH, J. A. (1954). *Brit. J. Derm.*, **66**, 449. 2 figs, 33 refs.

Structural and Constitutional Analysis of G.P.I. [In English.] POLÓNIO, P., MENDES, F., GUERRA, M., and SILVA, P. (1953). *An. port. Psiquiat.*, **5**, 197. 3 refs.

Latent Syphilitic Diseases and Their Diagnosis. GRILLMAYR, W. (1954). *Neurology (Madras)*, **2, 33.** 15 refs.

Untreated Syphilis in the Male Negro—A Prospective Study of the Effect on Life Expectancy. SHAFER, J. K., USILTON, L. J., and GLEESON, G. A. (1954). *Publ. Hlth Rep. (Wash.)*, **69**, 684. 16 refs.

Amyloidosis following Syphilis as a Cause of Death. (Amyloidose nach syphilis als todesursache.) DAESCHLEIN, G. (1954). *Z. Haut- u. GeschlKr.*, **17**, 82. Bibl.

Syphilis in Quebec in 1952—Developments During the Last 10 Years. (La syphilis a Quebec en 1952—Evolution depuis dix ans.) GAUMOND, E., and CHARLTON, M. (1954). *Laval méd.*, **19**, 1021. 9 figs.

Can Syphilis progress in the Presence of Negative Serological Reactions? (Une syphilis peut-elle évoluer avec des réactions sérologiques négatives?) JOULIA, P., and TEXIER, L. (1954). *J. Méd. Bordeaux*, **131**, 951.

SYPHILIS (Therapy)

Penicillin Treatment of General Paresis. A Clinico-anatomic Study. GIANASCOL, A. J., WEICKHARDT, G. D., and NEUMANN, M. A. (1954). *Amer. J. Syph.*, **38**, 251. 6 figs, 9 refs.

The clinical and necropsy findings (including the histology of the brain) in fourteen patients suffering from general paresis who had received only 6 mega units aqueous sodium penicillin within a period of 30 days are reported. It is concluded that this dose was adequate to arrest the pathological process of general paresis, any residual lesions being attributable to changes such as neurone destruction which probably anteceded treatment. The microscopical findings included persistence of meningeal fibrosis with minimal lymphocytic and plasma-cell infiltration, persistence of a prominent marginal gliosis, persisting evidence of cortical neurone loss, and in many cases minimal to moderate disturbance of the architecture of the cortex. Astrocytosis and microglial reaction, including the presence of rod cells, may apparently persist to a slight, and less frequently to a moderate, degree. As the interval between treatment and death lengthened perivascular infiltration gradually subsided and the neuropathological findings approached those of inactive paresis until, after 38 months, there were no signs of activity of the syphilitic process in the brain. *R. R. Willcox*

Treatment of Early Syphilis with Chloromycetin. MAZZINI, M. A., and BLASI, A. A. (1954). *Amer. J. Syph.*, **38**, 341. 7 refs.

The authors report, from the University of Buenos Aires School of Medicine, the results of the treatment with chloramphenicol of nine patients with early syphilis. In four cases the drug was given in daily oral doses ranging from 40 to 65 mg./kg. body weight, and in six cases (one patient was re-treated for re-infection) in doses of 75 to 100 mg./kg., treatment being continued for 6 to 8 days. The surface lesions healed rapidly in all cases in the latter group, but of the four cases receiving the lower dosage, healing was delayed in three. Serological reversal appeared to be satisfactory. The drug was well tolerated in spite of the high dosage, which the authors advise for the type of syphilis encountered in Argentina. [Most British doctors would hesitate to use the high dosage of chloramphenicol advocated, but such treatment might be helpful when the patient is intolerant of penicillin.] *Robert Lees*

Use of Cortisone during Penicillin Treatment of Secondary Mucocutaneous Syphilis in a Hypersensitive Patient. BRODEY, M., and NELSON, C. T. (1954). *New Engl. J. Med.*, **250**, 1069. 1 fig., 12 refs.

Attention is drawn to previous papers which have indicated the apparent ability of corticosteroids to suppress the usual response of the host to treponemes and thus promote the spread of untreated syphilitic infection.

The article reports a case which during initial treatment of early syphilis showed severe penicillin hypersensitivity. He subsequently developed a serological relapse in both blood and C.S.F., and further penicillin therapy was instituted. This resulted in a sensitivity reaction severe enough to warrant the administration of ACTH and cortisone. Penicillin was discontinued and chlortetracycline given in an effort to control the syphilitic infection, but 1 year later he developed a dark-field positive mucocutaneous relapse. It is suggested that inadequate response to chlortetracycline and possible dissemination of *T. pallidum* after corticosteroid therapy may have played an important part in this mucocutaneous relapse.

The patient was re-treated with large doses of penicillin while antihistaminics and cortisone were given simultaneously to control the hypersensitivity. Some 14 months later his response to treatment was judged satisfactory and there has been a steady decline in serological activity.

The authors conclude that providing large doses of penicillin are given to control the syphilitic infection, corticosteroids may safely be used to control hypersensitivity in such patients.

[It would appear, however, that the observation period is as yet too short in view of the previous marked tendency to relapse shown by this patient.]

Leslie Watt

Results of Penicillin, Cortisone, and Non-penicillin Treatment of Syphilitic Optic Atrophy, with Report of Clinical Observations. KLAUDER, J. V., and GROSS, B.A. (1954). *Amer. J. Syph.*, **38**, 270. 11 refs.

This paper reports 104 cases of syphilitic optic atrophy (99 due to acquired and five to congenital syphilis) treated with penicillin, alone or together with other measures, and compares the results with those in 86 patients treated before penicillin was available.

The first group of 39 patients received 4·2 mega units aqueous penicillin alone, and the same course was given together with fever and metallotherapy to patients requiring re-treatment. Favourable progress was noted in 26 cases, while the condition worsened in thirteen, re-treatment being given in seven instances. Before treatment the condition was considered to be progressive in 34 of these patients.

The second group consisted of 29 patients, in all of whom the optic atrophy was considered to be progressive. They were given 6 mega units penicillin and sixteen also received fever therapy (malaria or typhoid vaccine). A favourable response was noted in eighteen cases, while the optic atrophy progressed in eleven; re-treatment was given to six patients.

A third group of 36 patients with progressive optic atrophy received eleven mega units penicillin, fourteen receiving fever therapy in addition. Metal chemotherapy, more penicillin, and in some instances cortisone or ACTH were given on re-treatment. A favourable outcome was noted in 23 cases, while progress was unfavourable in thirteen, eight of which were re-treated.

The 86 patients in the " non-penicillin " group received a variety of forms of treatment, including arsenic and bismuth, and in some cases fever and subdural treatment. Favourable progress was recorded in 36 cases, while in fifty the condition progressed.

[The variations in the regimes of treatment given in the four groups makes any form of strict comparison extremely difficult. This paper, however, represents the fruits of a life-time of experience for each, and as such must command respect.] *R. R. Willcox*

Topical Cortisone in the Treatment of Syphilitic Interstitial Keratitis. Preliminary Report of 20 Cases (26 eyes). HORNE, G. O. (1954). *Brit. J. Ophthal.*, **38,** 669. 3 refs.

In this report the value of topical cortisone in interstitial keratitis is again stressed. In only two eyes was there residual corneal scarring sufficient to reduce the vision to 6/18 in one and 6/24 in the other.

A. G. Leigh

Treatment of Interstitial Keratitis with Penicillin or with Penicillin combined with Fever Therapy. [In Polish with an English Summary.] SÉGAL, P., and JASTRZEBSKA, D. (1953). *Przegl. derm.*, **3,** 409.

An account of the penicillin treatment of 56 patients (21 female, 35 male) with interstitial keratitis out of 146 cases of congenital syphilis. All patients had iritis as well and one had secondary glaucoma. Penicillin seemed to be better than the old specific treatments.

M. H. T. Yuille

Syphilitic Keratitis and Cortisone. (Queratitis sifilitica y cortisona.) VILANOVA, X., and DULANTO, F. DE (1953). *Actas dermo-sifiliogr.* (*Madr.*), **44,** 374.

Good results are obtained but there are strong contraindications. Since Woods in 1950 introduced the application in the form of collyrium and ointment locally, these disadvantages have been eliminated.

A. Arruga

Dangers of Penicillin in the Treatment of Acute Infections in Patients with Undiagnosed Syphilis. (Les dangers de la penicilline dans le traitement d'infections aiguës chez les syphilitiques méconnus.) JUSTIN-BESANÇON, L., KLOTZ, H. P., and HAZARD, J. (1954). *Sem. Hôp. Paris*, **30,** 3403. 1 ref.

Penicillin Treatment of Syphilis. Part I. (Penicillinbehandlung der Syphilis.) WERNSDÖRFER, R. (1954). *Z. Haut- u. GeschlKr.*, 17, 236.

Findings in the Cerebrospinal Fluid in Secondary Syphilis treated with Penicillin and Bismuth. (Reperti liquorali in luetici secondari trattati con penicillina e bismuto.) CORTELLA, E. (1954). *Rif. med.*, **68,** 848.

Penicillin Treatment of Cardiovascular Syphilis. EDEIKEN, J., and BEERMAN, H. (1954). *Med. Clin. N. Amer.*, **38,** 1757. 2 figs, 16 refs.

What are the Prospects of Modern Anti-Syphilitic Therapy, What is the Critical Stage of the Disease and Why do so Many Divergent Opinions concerning Antibiotical Therapy Exist? [In English.] SIMONS, R. D. G. PH. (1954). *Ned. T. Geneesk.*, **98,** 3295. 28 refs.

Treatment and Prevention of Syphilis by Antibiotics. HIGUCHI, K., URABE, H., TSUBOI, H., and IWASAKI, H. (1953). *Kyushu Mem. med. Sci.*, **4,** 115.

Study of Current Treatment Practices in Early Syphilis throughout the World. WILLCOX, R. R., GUTHE, T., IDSOE, O., and REYNOLDS, F. W. (1954). *Amer. J. Syph.*, **38,** 388. 9 figs, 6 refs.

SYPHILIS (Serology)

Use of Calcium Saline Solution in Kolmer Complement-fixation Test. KOLMER, J. A., and LYNCH, E. R. (1954). *Amer. J. clin. Path.*, **24,** 946. 6 refs.

The effects of adding calcium to the saline used in the Kolmer complement-fixation test as recommended by Brown and others (*Amer. J. clin. Path.*, 1954, **24,** 934) have been examined by the authors at Temple University School of Medicine, Philadelphia. Enhancement of the complement titre was found to occur in 78 out of eighty complement titrations, the titres for two full Kolmer complement units in fifty of the tests being equal to or less than the absolute minimum of 1·0 ml. of a 1 : 43 dilution laid down by Kolmer. A slight increase in haemolysin titres was also noted.

Parallel quantitative Kolmer tests were carried out using saline with and without the addition of 0·04 g. $CaCl_2.2H_2O$/litre on 85 syphilitic and 61 non-syphilitic sera and on twelve specimens of syphilitic and 28 of non-syphilitic cerebrospinal fluid (C.S.F.). Stronger reactions were given by 27 syphilitic sera with the added calcium and by six without, while 55 of the non-syphilitic sera gave negative reactions to both tests, but six showed incomplete lysis of the controls, with possible false

positive reactions, in the test with added calcium. In the tests on C.S.F., eight of the syphilitic group gave a stronger reaction with added calcium, and one without, while 23 of the non-syphilitic fluids gave negative reactions in both tests, but five showed incomplete lysis of the controls, with some possible false positive reactions, in the test with added calcium.

The authors conclude that while the addition of calcium to the saline enhances complement activity and the sensitivity of the Kolmer test, it may be wise to set an arbitrary limit of not less than 0·35 ml. of 1 : 30 dilution of complement as the exact unit, or 1·0 ml. of 1 : 37 dilution as two full Kolmer units, when the test is performed under these conditions. If higher dilutions are used incomplete lysis of controls and possible false positive reactions may occur, particularly with C.S.F.

A. E. Wilkinson

Effect of Calcium Ion on the Kolmer Complement-fixation Test. BROWNE, A. S., MICHELBACHER, M. M., and COFFEY, E. M. (1954). *Amer. J. clin. Path.*, **24**, 934. 3 figs, 18 refs.

While carrying out the Kolmer complement-fixation test in the laboratories of the California State Department of Health, the authors experienced difficulties due to low complement titres and to fluctuations in titre which could not be explained by variation in the reagents used, but showed a rough correlation with the purity of the distilled water. With the addition of calcium to the saline used, however, consistently high and constant titres were obtained, 0·04 g. $CaCl_2.2H_2O$ per litre of saline being found to be the optimal level. Parallel complement titrations carried out with and without added calcium and with varying periods of primary incubation showed that when primary incubation was omitted altogether the addition of calcium made no difference to the titre, but it increased the titre slightly when incubation periods of 30 min. at 37° C. and of 16 hrs at 4 to 6° C. plus 10 min. at 37° C. were used. With an initial dilution of complement in the two salines of 1 : 50 instead of the usual 1 : 30 in the presence of 0·2 ml. inactivated normal serum and with a primary incubation period of 16 hrs at 4 to 6° C. plus 10 min. at 37° C. there was less non-specific destruction of complement when calcium was added. This was also the case in control tests in which no serum was added. With twelve sera the 100 per cent. titre (the dilution of complement in 1 ml. that just gives complete haemolysis) ranged from 62 to 125 in saline without calcium and from 71 to 125 in saline with calcium. In subsequent work the 100 per cent. titre was taken as the actual titre found rather than the arbitrary upper limit of 1 : 43 set by Kolmer.

Parallel tests with the two salines on 532 specimens of serum or cerebrospinal fluid (C.S.F.) showed that of 252 (231 sera and 21 C.S.F.) which were reactive to the VDRL slide test, 42 were reactive to the Kolmer test only with added calcium ; sixteen sera gave anticomplementary reactions—seven with both salines, seven with added calcium only, and two with Kolmer saline only. A comparison of the results of the VDRL slide test with those of the standard Kolmer test on 160,984 sera showed that 4·3 per cent. were negative to the latter but reacted to the former. In similar tests carried out on 47,701 sera in which calcium was added to the saline and complement used at the titrated dilution this figure was reduced to 3·5 per cent.

The authors conclude that the addition of 40 mg. $CaCl_2.2H_2O$ per litre of Kolmer saline is of value in giving high complement titres, increasing sensitivity, and stabilizing the test results. Magnesium should be added as the chloride instead of the sulphate to avoid precipitation of calcium sulphate. *A. E. Wilkinson*

Anticomplementary Reaction in Syphilis Serodiagnosis. GELPERIN, A. (1954). *Amer. J. Syph.*, **38**, 304. 10 refs.

The phenomenon of the anticomplementary reaction in complement-fixation tests is neither absolutely preventable nor completely understood. From investigations carried out by the authors at Johns Hopkins University and Hospital, however, it is evident that positive serum is made anticomplementary by the addition of the alcoholic extract of normal human serum. Eagle's routine Wassermann technique revealed no haemolytic factors, nor were the prepared antigens in themselves anticomplementary. The author's experiments also indicate that while benzene has no effect, the addition of ether makes serum lipids " available " as antigen, cholesterol merely acting as a " fortifying " agent. The author considers that syphilitic serum contains the ingredients necessary to complete an antigen-antibody reaction. He also assumes that the anticomplementary phenomenon may result from the mobilization of the serum lipids and their consequent availability as an antigen, and that this mobilization is in some way produced by treating the serum with ether.

G. L. M. McElligott

Victoria Blue (Berger-Kahn) Flocculation Test for the Serological Diagnosis of Syphilis. GREENBURGH, H., and STEPHENS, B. J. (1954). *Guy's Hosp. Rep.*, **103**, 174. 6 refs.

The Victoria blue (V.B. ; Berger-Kahn) flocculation test for the diagnosis of syphilis, first described by Berger (*J. Path. Bact.*, 1943, **55**, 363), is a slide test of relatively simple technique in which the dye Victoria blue 4R is used as a sensitizing agent and as an indicator of the occurrence of flocculation when serum from a syphilitic patient is added to a mixture of compound tincture of benzoin and Kahn antigen.

The authors applied this test in parallel with the Wassermann and Kahn reactions to all sera sent to the clinical pathological laboratory of Guy's Hospital, London, for routine testing for syphilis during the first 5 months of 1950, during which time 2,116 samples of serum were tested. Complete agreement between the three tests was obtained in 1,845 cases (87·2 per cent.). In 162 instances the V.B. test gave a doubtful (±) result with sera from patients with no clinical evidence of syphilis and with which the Wassermann and Kahn tests were negative. It was decided, therefore, to classify doubtful V.B.-test results as negative and to accept only

a positive result (+) or greater degree (++) as indicating a positive reaction to the test. This gave complete agreement between the three tests in a further 7·65 per cent. of cases, giving a total of 94·85 per cent. with full agreement. [Doubtful Wassermann reactions were, however, classed as positive.]

In no instance was it found that an untreated case of confirmed syphilis gave a negative result with the V.B. test. Negative V.B.-test results were found in association with positive Wassermann and/or Kahn reactions in 34 instances. In only twelve of these cases did further investigations lead to a diagnosis of syphilis, and all twelve patients had received antisyphilitic treatment. In another group of 26 sera giving positive V.B.-test results in the presence of negative Wassermann and Kahn reactions it was found that five samples of serum were from cases of early untreated syphilis, three from cases of late untreated syphilis, fifteen from cases of treated syphilis, and one from a case of general paralysis : in the remaining two cases no information was available.

The authors conclude that the V.B. test, on account of the stability of the antigen, the small amount of serum required, and the ease and rapidity with which the test can be carried out, is very suitable for use in laboratories where large numbers of sera have to be screened for evidence of syphilis. They recommend that sera giving a positive reaction should be further examined by other tests in order to confirm the result and eliminate false positive reactions. *A. J. King*

Comparative Reactivity of the VDRL Slide and Other Tests for Syphilis in Random Population Groups (including *Treponema pallidum* Immobilization Test). HARRIS, A., OLANSKY, S., and BOSSAK, H. N. (1954). *Amer. J. Syph.*, **38**, 295. 14 refs.

From 19,591 blood specimens collected from volunteer donors, 2,560 random samples were tested for syphilis at the Venereal Disease Research Laboratory of the U.S. Public Health Service by four slide microflocculation methods using cardiolipin-type antigens, namely, the VDRL slide, Kline Standard, Rein-Bossak, and Mazzini tests. In 52 cases the results were not in agreement and the residual serum from these specimens was subjected to the *Treponema pallidum* immobilization (TPI) test. A direct comparison of the VDRL slide and TPI tests was also made on 466 specimens.

The results of these comparisons [which are well tabulated] suggest :

(1) that the VDRL slide test is rather less sensitive than the other three serum tests ;

(2) that a positive result in the TPI test combined with a negative result in the VDRL slide test is probably a more frequent discrepancy than the reverse ;

(3) that not one of the five tests used supported the clinical findings or the history in 100 per cent. of cases.

G. L. M. McElligott

Cardiolipin Antigen in the Kolmer-Wassermann Test for Syphilis. KLEIN, S. J., KONWALER, B. E., and LEIBY, G. M. (1954). *Amer. J. Syph.*, **38**, 318. 31 refs.

In this article the authors record a comparison of cardiolipin antigen with standard Kolmer antigen in the Kolmer-Wassermann reaction. Parallel testing was carried out on 374 sera from known cases of syphilis, on 518 presumed non-syphilitic sera, and on 2,956 unclassified sera. Though cardiolipin antigen gave a significantly higher incidence of false positive reactions in the non-syphilitic sera, in general it gave results which correlated better with a history of syphilis, especially in low titre, than the Kolmer antigen. This was also the case in the unclassified sera.

The results of a large-scale screening of 40,010 unclassified sera with the Kline and Kahn tests are also reported. These showed the more sensitive Kline test to be more efficient for screening purposes than the Kahn test in spite of the latter being more specific.

G. L. M. McElligott

Immune-Adherence Test for Syphilis. Comparison with TPI and VDRL Slide Tests. OLANSKY, S., HARRIS, A., and CASEY, H. (1954). *Publ. Hlth Rep. (Wash.)*, **69**, 521. 8 refs.

The immune-adherence (IA) test (Nelson, *Science*, 1953, **118**, 733) was carried out on 234 syphilitic and 71 presumed non-syphilitic sera at the Venereal Disease Research Laboratory of the U.S. Public Health Service, and the results compared with those of the treponemal immobilization (TPI) test and the VDRL slide test using cardiolipin antigen. As no criteria of positivity have yet been laid down for the IA test, the sera were divided into three zones of reactivity according to the treponeme count : (*a*) 0 to 10 treponemes per 10 fields ; (*b*) 11 to 30 ; and (*c*) 31 or more.

Of 44 sera from patients with primary and 54 from patients with secondary syphilis, including both treated and untreated cases, more were placed in Zone A or B than gave a positive result in the TPI or VDRL tests. The IA and TPI tests were similar in that the results of both sometimes remained positive in an adequately treated case longer than that of the VDRL test. Closer agreement was found between the results of the three tests on sera from 74 patients with latent syphilis and 62 with late syphilis, again including treated and untreated cases. This may be accounted for by the small proportion of patients who had had adequate treatment and by the fact that in the majority of these cases less than 6 months had elapsed between the completion of treatment and the examination of the serum, so that positive reactions to the VDRL slide test would be expected.

The 71 patients who were presumed to be non-syphilitic included several [number not stated] whose sera had previously shown some reactivity to one or more serological tests for syphilis, but who were thought to be non-specific reactors because of the lack of clinical evidence or history of syphilis. In the whole group, six gave Zone-A reactions to the IA test, nine gave a positive reaction to the TPI test, and nine gave a positive reaction to the VDRL test.

From an analysis of these results it is concluded that the two tests in which treponemal antigens are used may give divergent results with the same serum, and that maximal (Zone-A) reactions with the IA test may be

obtained in some cases where there is no other evidence of syphilis. The authors also conclude that the substance responsible for reactivity to the IA test is probably similar to, if not identical with, that responsible for reactivity to the TPI test, and that the IA-test results follow those of the TPI test more closely than those of the VDRL test. As the IA test is simple and does not need a freshly prepared antigen, it may provide a practical substitute for the TPI test.

[The high incidence of positive reactions with all three tests among the " presumed non-syphilitic " group makes it difficult to assess the specificity of the IA test from this material.] *A. E. Wilkinson*

Relation between the Quantitative Kahn and Wassermann Reactions and the Erythrocyte Sedimentation Rate. (Das Verhalten von quantitativer Kahn- und Wassermann-Reaktion und Blutkörperchensenkungsgeschwindigkeit.) KITTSTEINER, W. (1954). *Arch. Derm. Syph. (Berl.)*, **198,** 23. 5 figs, 5 refs.

Investigation into the cause of the well-known variability of the titre in serial serological tests for syphilis on individual patients, even when laboratory techniques, reagents, and treatment are kept as constant as possible, suggested that there was some correlation between the titre and the erythrocyte sedimentation rate (E.S.R.). This was proved to be statistically significant for the Kahn and Wassermann reactions and to be of particular importance in cases in which the E.S.R. is either very low or very high. Some examples, with statistical evaluation, are given.

[This is an interesting line of research. It is not clear from the paper whether the abnormal E.S.R. was thought to be due to syphilis or to other causes.]

G. W. Csonka

Experience with the Cardiolipin Complement-fixation Reaction. I. Analysis of the Results of 62,910 Serological Tests for Syphilis. (Erfahrungen mit der Cardiolipin-Komplementbindungsreaktion. 1. Auswertung der Ergebnisse von 62910 serologischen Luesuntersuchungen.) LEGLER, F. (1954). *Z. Hyg. InfektKr.*, **140,** 87. Bibl.

Between 1950 and 1953, 62,910 sera were examined for syphilis at the State Bacteriological Research Institute, Erlangen, seven different tests being employed. These were the cardiolipin-complement-binding reaction (CCBR) (using cardiolipin as antigen), three types of the Wassermann reaction (with syphilitic liver, human heart, and calf heart extract as antigens), the " citochol " reaction, the Meinicke II test, and the Kahn test. The greatest number of strongly positive results were obtained with the cardiolipin test (Kolmer technique), followed in order by the Meinicke II test, the citochol reaction, and the Kahn test. The CCBR was alone positive in 2,244 samples of serum, most of which came from old, treated cases, whereas the Wassermann reaction using the other antigens was alone positive in 949 cases, most of which, however, were thought to be non-syphilitic. *G. W. Csonka*

Reproducibility of Results of the TPI Test. BOAK, R. A., MILLER, J. N., and CARPENTER, C. M. (1954). *Amer. J. Syph.*, **38,** 434. 5 refs.

Although in some hands the *Treponema pallidum* immobilization test has failed to give consistent results on repetition in a high proportion of cases, the results in 97·4 per cent. of 874 specimens tested and re-tested by the authors were in complete agreement. Though no certain explanation can be given for the few disagreements, the possibility that many patients with no history of treatment for syphilis may nevertheless have received antibiotics for other diseases cannot be eliminated. The necessity for extreme care in cleansing the glassware used in the test is emphasized.

G. L. M. McElligott

Suitability of Heparinized Plasma and Deheparinized Serum in Serodiagnostic Tests for Syphilis. REIN, C. R., SCHWARTZ, S., and KELCEC, L. C. (1954). *Amer. J. Syph.*, **38,** 405. 3 refs.

The purpose of this study reported from the New York University Hospital was to determine the suitability of heparinized human plasma for examination by the standard serological tests for syphilis. The heparinized specimens were converted to serum by adding 0·1 ml. (2·5 mg.) protamine sulphate to each ml. plasma, the tubes then being inverted several times, a clot developing within 10 min. It is stated that although the serological activity of serum so prepared from heparinized plasma is apparently not impaired, microflocculation tests may be interfered with by a precipitate which appears on heating and which needs prolonged centrifugation for its complete removal ; it was also noted that turbid reactions are obtained in complement-fixation tests. Heparinized plasma is thus less satisfactory than serum for serological testing.

G. L. M. McElligott

Comparison of Spinal Fluid Findings among Syphilitic and Nonsyphilitic Individuals. CUTLER, J. C., BAUER, T. J., PRICE, E. V., and SCHWIMMER, B. H. (1954). *Amer. J. Syph.*, **38,** 447. 3 figs, 9 refs.

Cerebrospinal fluid obtained at the Chicago Intensive Treatment Center from 346 normal subjects, 293 patients with primary syphilis, and 477 patients with secondary syphilis were examined by the authors, the Kahn test, a cell count, and an estimation of the protein content by the modified Denis-Ayer method being carried out at the Venereal Disease Research Laboratory, Staten Island, New York. In a second series the Kolmer complement-fixation test and the Eagle flocculation test were performed in place of the Kahn test on specimens of fluid obtained at the U.S. Public Health Services Hospital, Staten Island, from 215 normal subjects, 210 patients with primary syphilis, and 83 patients with secondary syphilis. In both series the patients were untreated at the time of examination.

In the Chicago series none of the specimens from cases of primary syphilis reacted with the Kahn test, while ten (2 per cent.) of the secondary cases did so. In

the Staten Island series eight patients with primary syphilis (3·7 per cent.) and 24 with secondary syphilis (22·4 per cent.) gave a positive reaction with the Kolmer test. These differences were possibly due to variations in race and sex distribution between the two series and to differences in the sensitivity of the serological tests used.

No differences were found in the cell count in the Chicago series between normal subjects and patients with primary or secondary syphilis where the serological reactions were negative in the spinal fluid. Of the normal subjects the cell count was greater than 10 per c.mm. in 2·3 per cent., whereas in the Staten Island series only one (0·5 per cent.) had a count above this level. Where the serological reactions were positive in the spinal fluid the corresponding figures were 75 and 21·9 per cent. at the two centres respectively.

In the Chicago series a protein concentration of more than 40 mg./100 ml. was found in 15·1 per cent. of specimens from normal subjects, in 17·4 per cent. of those from cases of primary syphilis, and in 11·5 per cent. of those from cases of secondary syphilis where the serological reactions were negative in the spinal fluid. The corresponding figures for the Staten Island series were 35·3, 13·3, and 9 per cent. respectively. The authors consider that in the absence of positive serological reactions in the spinal fluid the total protein content alone, as measured by the Denis-Ayer method, is of little significance in indicating involvement of the central nervous system in early syphilis. Some patients who had shown high protein levels were re-examined a year after presumably successful treatment, and the level was maintained in 31 out of 45 patients. The authors suggest that this may be normal for some individuals.

[The " normal " subjects with cell counts and protein levels outside the accepted normal range were not, apparently, investigated further to exclude possible causes for these findings. The paper contains a mass of data in tabular form which cannot be compressed into an abstract, but which merits attention by those called upon to interpret spinal-fluid findings in early syphilis.] *A. E. Wilkinson*

Treponemal Immobilization and Standard Test Reactions in Suspected Biologic False Positive Sera. WHEELER, A. H., GOOR, K. VAN, and CURTIS, A. C. (1954). *Amer. J. Syph.*, **38,** 437. 17 refs.

The treponemal immobilization (TPI) test has been carried out at the University of Michigan Medical School on 763 sera from patients in whom the standard tests for syphilis (STS) had been found positive at other laboratories. The TPI test gave positive results in 370 cases, negative in 338, and doubtful in 25.

A tentative clinical diagnosis of syphilis had been made in 116 cases, and the TPI reaction was positive in 81 of these, while of 256 patients who were thought to be non-syphilitic and to have given a non-specific reaction to the STS the TPI reaction was positive in 92. In seventy of these patients the history of non-specific reaction was of long duration ; in 34 of the seventy in whom a suspected predisposing factor, such as lupus erythematosus or malaria, was present the TPI reaction was negative ; of 36 in whom no such cause was evident, however, it was negative in only fifteen. The presumed non-specific reaction was thought to be of the acute type in 186 patients ; these included 42 patients with upper respiratory tract infections, in 33 of whom the TPI reaction was negative, and eleven patients in whom the reaction had followed immunization [agent not stated], in nine of whom the TPI reaction was negative, as it was in 29 out of 39 sera from pregnant women. [This is a considerably higher incidence than other workers have found in pregnancy sera.]

An estimate of the reproducibility of the result of the TPI test was made from the results of examinations of second specimens of serum from 42 patients. Identical results were obtained in 33 cases, there were minor discrepancies in seven, and in two cases in which the result was initially positive subsequent tests gave negative results. More than one test was made on the same specimen of serum in 195 cases, identical results being obtained in 154 ; in eight an initial doubtful result was found to be definitely positive or negative on re-testing, and one serum which originally gave a positive reaction was found negative at the second test ; 32 sera were either anticomplementary or toxic when first examined. The authors conclude that the TPI test gives satisfactory reproducibility of results. *A. E. Wilkinson*

Value of Merthiolated Sera in Evaluation Surveys. REIN, C. R., and KELCEC, L. C. (1954). *Amer. J. Syph.*, **38,** 308. 8 refs.

" Merthiolate " (sodium ethylmercurithiosalicylate) is an excellent bacteriostatic and bactericidal agent for the preservation of sera. It has been found to be of value in evaluating serodiagnostic tests for syphilis. It is also of value in preparation of positive control sera and for the shipment of sera from distant places to a central laboratory for serologic testing.—[*Author's summary.*]

Three Years' Practical Experience of the Treponemal Immobilization Test (Nelson and Mayer's Method). (Trois années de pratique du test d'immobilisation du *Treponema pallidum* (méthode de Nelson et Mayer).) VAISMAN, A., HAMELIN, A., and VAISMAN, H. (1954). *Presse méd.*, **62,** 1074. 23 refs.

The authors discuss the practical aspects of the *Treponema pallidum* immobilization (TPI) test on the basis of their experience in the performance of 7,922 tests at the Alfred-Fournier Institute, Paris, during 1951–53.

In sero-negative primary syphilis the TPI test result was invariably negative before treatment, but in the majority of cases became positive later, this positivity persisting in some instances up to 18 months in spite of negative results of standard tests and of adequate treatment. In sero-positive primary cases and in secondary cases the TPI reaction became positive later than did other reactions and remained so for much longer. It is suggested that the performance of this test after several years might prove useful in confirming the efficacy of treatment.

In cases of clinical tertiary syphilis, asymptomatic latent syphilis, and cases insufficiently or irregularly treated, as well as in those in which there was clinical or serological relapse, the TPI reaction was invariably positive and remained so after the other reactions had become negative as the result of treatment. Similar results were obtained in tests of both blood and cerebrospinal fluid in cases of tabes dorsalis and general paresis.

The reaction was also positive in all cases of congenital syphilis. Attention is drawn, however, to the possibility of a passive transfer of antibodies from a serologically-positive mother in neonatal cases giving a positive reaction which subsequently becomes negative.

Of the 7,922 samples of serum examined 265 (3·35 per cent.) were considered to have given false positive reactions to the standard tests, these reactions being feeble or variable as a rule. In case of re-infection formation of antibodies was more rapid than in first infections and the TPI reaction became positive earlier. The authors claim that a positive TPI reaction is the most reliable evidence of the presence of a recent or old syphilitic infection, antibodies never having been found in normal subjects or in any disease other than the treponematoses. Because of the long duration of positivity the TPI test allows of retrospective diagnosis of syphilis in treated cases, and a negative test result after treatment is probably the most reliable criterion of cure. They point out that the persistence of immobilizing antibodies does not necessarily indicate active disease.

Benjamin Schwartz

Culture of *Treponema pallidum* and the Immunological Diagnosis of Syphilis. (Pallidakultur und Immunodiagnostik der Syphilis.) SCHERESCHEWSKY, J. (1954). *Z. Haut- u. GeschlKr.*, **17**, 233.

Experience with De Donno's Proposed Modification of the Wassermann Reaction. (Esperienze con il nuovo metodo per la reazione Wassermann proposto da De Donno.) VALERIO, V., and FRANCIOSI, A. (1954). *Rif. med.*, **48**, 1160.

Obstetrical Significance of the Treponemal Immobilization Test of Nelson and Mayer. (Intérêt du test d'immobilisation du tréponème de Nelson et Mayer en milieu obstétrical.) PIGEAUD, H. SOHIER, R., THIVOLET, J., RICHARD, G., and ROLLAND, M. (1954). *Ann. Med.*, **55**, 393. Bibl.

Specificity and Sensitivity of the Cardiolipin Macroflocculation Reaction. (Zur Spezifität und Empfindlichkeit der Cardiolipin-Mikroflockungsreaktion.) BOLLINGER, D. (1954). *Dermatologica (Basel)*, **109**, 75. 21 refs.

Comparison of the Ide Test with the Kahn Test and the Interpretation of the Ide Test. BOULGER, L. R., and WINSTON, R. M. (1954). *W. Afr. med. J.*, **3**, 130. 4 refs.

Behaviour of the Serum Reactions for Syphilis after Treatment with Penicillin. (Das Verhalten der Blutserumreaktionen auf Syphilis nach einer Penicillinbehandlung.) GUMPESBERGER, G. (1954). *Z. Haut- u. GeschlKr.*, **17**, 170. 9 refs.

Interpretation of Positive Serologic Tests for Syphilis in Clinically-negative Patients. MAGNUSON, H. J. (1954). *J. Mich. med. Soc.*, **53**, 744. 5 refs.

Personal Experience of Cardiolipin in the Sero-diagnosis of Syphilis. (La nostra esperienza con la cardiolipina nella sierodiagnosi della lue.) MARSON, G. B., and ROSSETTI, C. (1954). *Minerva derm. (Torino)*, **29**, 353. 29 refs.

Relation of Lymphogranuloma Venereum to Syphilis and to False Positive Serologic Tests for Syphilis. SIMPSON, R. G. (1954). *Amer. J. Syph.*, **38**, 422. 32 refs.

False Positive Syphilitic Reactions in Leprosy with special reference to the Cardiolipin Antigens. (Le false reazioni per la lue nella lebbra con particolare riguardo per gli antigeni alla cardiolipina.) LOMUTO, G. (1954). *Minerva derm. (Torino)*, **29**, 255. 22 refs.

SYPHILIS (Pathology)

Preliminary Report on Comparative Investigations on Patients with Framboesia and Syphilis by means of the Luotest and Framboetin Skin Tests. (Vorläufige Mitteilungen über vergleichende Untersuchungen an Frambösiekranken und Luetikern mit den beiden Hauttesten Luotest und Frambötin.) GRILLMAYR, W., ROTTMANN, A., and TEICHMANN, J. (1954). *Wien. med. Wschr.*, **104**, 996.

Spinal Fluid Evaluation in Neurosyphilis. RAUSCH, N. G. (1954). *N. Y. St. J. Med.*, **54**, 2708. 10 refs.

SYPHILIS (Experimental)

Studies on the Metabolism of the Treponemata. 1. Amino Acid Metabolism. BARBAN, S. (1954). *J. Bact.*, **68**, 493. 3 figs, 14 refs.

Free Amino Acids and Glutathione of Normal and Syphilitic Rabbit Testes. TAUBER, H. (1954). *Proc. Soc. exp. Biol. (N. Y.)*, **86**, 838. 1 fig., 5 refs.

Studies on the Mechanism of Action of Cortisone in Experimental Syphilis. TURNER, T.B., and HOLLANDER, D. H. (1954). *Amer. J. Syph.*, **38**, 371. 5 figs, 23 refs.

GONORRHOEA

Question of the Penicillin Sensitivity of Gonococci. (Zur Frage der Penicillinempfindlichkeit der Gonokokken.) MARCUSE, K., and HUSSELS, H. (1954). *Derm. Wschr.*, **130**, 1031. 1 fig., 22 refs.

At the County Medical Research Laboratories, Berlin, the sensitivity to penicillin of gonococci obtained from

cervical and urethral smears in 232 cases of gonorrhoea was investigated between 1950 and 1952. By dividing cultures into a number of subcultures various degrees of resistant gonococci were grown ; the authors' methods are described in detail. The limit of penicillin sensitivity was reached at a concentration of 0·06 unit penicillin per ml. medium, at which level no growth was obtainable. When such cultures were allowed to continue growing the gonococci always reverted to a more sensitive strain ; this biological characteristic is thought to explain the fact that no penicillin-fast gonococci have so far been found. The authors believe that there is little likelihood of such a change occurring.

G. W. Csonka

Oral Tetracycline Hydrochloride for the Treatment of Acute Gonorrhoea in Males. METZGER, W. I., MARMELL, M., PRIGOT, A. (1954). *Amer. J. Syph.*, **38**, 480. 2 refs.

The newly developed antibiotic tetracycline is readily absorbed and widely diffused throughout the body ; in particular it is excreted in high levels in the urine, a finding which the authors consider is of great importance in treating infections of the genito-urinary tract such as gonorrhoea.

At Harlem Hospital, New York, fifty male patients suffering from acute gonorrhoea were treated with a total dosage of 1·0 g. tetracycline. Cure resulted in 44 cases, a cure rate of 88 per cent. This was not quite so good as that obtained with chlortetracycline (aureomycin) in a comparable series, in which the cure rate was 94·3 per cent. In another group of 24 patients suffering from the same complaint and treated with a total dosage of 1·5 g. tetracycline there were no failures, a cure rate of 100 per cent. No drug toxicity was observed in any of the patients. *Neville Mascall*

Relapses after the Treatment of Gonorrhoea with Penicillin. (Rückfälle nach Penicillinbehandlung der Gonorrhoe.) FRÜHWALD, R. (1954). *Z. Haut- u. GeschlKr.*, **16**, 278.

The incidence of relapse after treatment for gonorrhoea by the various methods used successively at the Municipal Clinic, Zwickau, Germany, during the last 30 years in a total of 1,574 men and 3,959 women is given as follows only those relapses being accepted as such which occurred during the patient's stay in hospital.

Treatment	Men			Women		
	No. Treated	Relapsed		No. Treated	Relapsed	
		No.	Per cent.		No.	Per cent.
Local therapy	177	15	8·5	205	66	32·2
Sulphonamide	331	55	16·6	587	61	10·4
Intramuscular penicillin	1,829	95	5·2	2,344	46	1·9
Oral penicillin	237	29	12·7	823	30	3·6

Although the majority of cases relapsing after treatment with penicillin had received it in low dosage, some had received as much as 600,000 units. In about 20 per cent. of cases the relapse was detected only after the tenth microscopical examination, and it is stressed that frequent and prolonged observation is necessary before a patient can be regarded as cured.

[The value of this paper would have been much greater if details had been given of the type of penicillin used, the antibiotic sensitivity of gonococci in the relapse cases, and the results of re-treatment ; and above all if it had been stated whether the proportion of relapses after penicillin treatment is on the increase. The very low incidence of relapse in women after oral or parenteral treatment with penicillin compared with that in men is remarkable.] *G. W. Csonka*

N:N′-Dibenzylethylenediamine Dipenicillin G Given Orally for the Treatment of Gonorrhea, WILLCOX, R. R. (1954). *Amer. J. Syph.*, **38**, 469.

The results of treatment of 74 patients suffering from gonorrhoea with N:N′-dibenzylethylenediamine di-(benzylpenicillin) given orally in a flavoured syrup base are reported. In 46 cases single oral doses ranging from 600,000 units to 4·8 mega units were given, the remaining 28 patients receiving two doses, each of 2·4 mega units, at an interval of 6 hrs.

Of the former group, 44 were followed up for periods up to 201 days. Of these, sixteen were definite failures, seven were considered to be cases of re-infection, three more had non-specific infections, and only eighteen (40 per cent.) could be regarded as cured. Of 23 out of the 28 given two doses and followed up for a maximum period of 177 days, fourteen (60 per cent.) " had no subsequent incident " and four were definite failures.

It is concluded that this product given in single orally-administered doses of up to 4·8 mega units is of little value in the treatment of gonorrhoea. The results of giving two doses of 2·4 mega units at an interval of 6 hrs were somewhat better. *Neville Mascall*

Effects of the Administration of Erythromycin upon *Neisseria gonorrhoeae* and Pleuropneumonia-like Organisms in the Uterine Cervix. RUBIN, A., SOMERSON, N. L., SMITH, P. F., and MORTON, H. E. (1954). *Amer. J. Syph.*, **38**, 472. 15 refs.

In the 5-year period 1935–40 before penicillin was available the average number of reported cases of gonorrhoea in the United States was some 175,000 per year ; in the last 5 years the figure has been about 200,000 per year. In view of this continuing incidence of gonorrhoea and the ill health due to its sequelae (notably chronic pelvic inflammatory disease) the authors, working at the University of Pennsylvania, Philadelphia, decided to test the efficacy of the newer antibiotic erythromycin, which is reputed to be effective against organisms resistant to other antibiotics. In discussion they also point out that it may be significant that other investigators have isolated pleuropneumonia-like organisms (PPLO) from the uterine cervix of approximately 80 per cent. of women suffering from gonorrhoea.

Erythromycin to a total dose of 3·6 g. was administered orally to 24 female out-patients with gonococcal infection,

confirmed by isolation of the organism, three 100-mg. tablets being taken four times a day for 3 days. In 22 cases (92 per cent.) cultures for the gonococcus were negative, and remained so in eighteen cases for three successive weeks; of the two unsuccessful cases, in one the organism was still present after treatment and in the other it reappeared after an interval of 2 weeks. None of the patients developed signs or symptoms suggestive of gonorrhoea of the upper genital tract. Erythromycin had no discernible effect on PPLO. Before treatment eighteen patients (75 per cent.) had both gonococci and PPLO present in the cervix, and after treatment PPLO could still be isolated in sixteen of them (67 per cent.). Side-reactions occurred in nineteen (79·2 per cent.) of the patients, in the form of diarrhoea, abdominal cramps, nausea, and vomiting, and sixteen patients developed temporary vulvar or anal itching, but in no instance were the symptoms severe enough to require discontinuation of therapy.

Neville Mascall

Successful Treatment of Gonorrhoeal Ophthalmitis by Sintomycin. [In Russian.] ZOLOTAREVA, M. M. (1954). *Vestn. Oftal.*, **33**, 44.

Prevention of Ophthalmia Neonatorum. (Profilaxia da oftalmia do recémnasoido.) DE MORAES, A. (1953). *An. brasil. Ginec.*, **36**, 283.

Oral Penicillin with and without Benemid in the Treatment of Gonorrhea. JACOBY, A., POLLOCK, J., and BOGHOSIAN, V. (1954). *Amer. J. Syph.*, **38**, 478. 3 refs.

Incidence of Gonorrhoeal Complications. [In English.] OLIN, T. E. (1954). *Ann. Chir. Gynaec. Fenn.*, **43**, Suppl. 5, 279. 9 refs.

Investigation with Gonococcal Cultures into the Question of the Existence of an Antagonism between PAS and Sulphonamides. (Untersuchungen an Kultur-Gonokokken zur Frage des Bestehens eines Paraaminosalicyl-säure-Sulfonamid-Antagonismus.) ZIERZ, P., and PAETZOLD, O. H. (1954). *Hautarzt*, **5**, 363. 6 refs.

Chemotherapy of Gonorrhea. Clinical Observations in 201 Cases. MENDELL, H. E., WORNAS, C. G., and FOXWORTHY, D. L. (1954). *Tex. St. J. Med.*, **50**, 649. 7 refs.

NON-GONOCOCCAL URETHRITIS AND ALLIED CONDITIONS

Investigations into the Pathogenicity of Pleuropneumonia-like Organisms in the Urogenital Tract in Man, with special reference to Non-Specific Urethritis. (Untersuchungen zur Pathogenität der pleuropneumonieähnlichen Organismen im Urogenitaltrakt des Menschen mit besonderer Berücksichtigung der unspezifischen Urethritis.) RÖCKL, H., NASEMANN, T., and STETTWIESER, E. (1954). *Hautarzt*, **5**, 340. 8 figs, bibl.

At the University Dermatological Clinic, Munich, examination of the urogenital secretions of 443 patients for the presence of pleuropneumonia-like organisms (PPLO) gave the following results. Of 115 specimens from men who had never had any urogenital disease, 22 (19·1 per cent.) gave a positive culture, and of 120 specimens from men with non-specific urethritis, 32 (27 per cent.) were positive. Of twenty cases of chronic prostatitis, the prostatic secretions were positive for PPLO in three (15 per cent.). Culture of cervical or urethral scrapings from 117 apparently healthy women was positive for PPLO in 73 instances (62 per cent.), and of 31 urethral specimens from healthy children of both sexes, four were positive.

The authors point out that the difference between the results in men with non-specific urethritis and those in controls is insignificant, and from these as well as the other findings they conclude the PPLO are normal inhabitants of the urogenital tract. The possibility of the organisms assuming pathogenicity at certain times, however, is not altogether dismissed.

G. W. Csonka

Erythromycin in Non-Specific Urethritis. WILLCOX, R. R. (1954). *Lancet*, **2**, 684. 8 refs.

The antibiotic erythromycin (prepared from *Streptomyces erythreus*) has given varying results in the treatment of gonorrhoea and granuloma inguinale and it also shows some potency against syphilis, but none against lymphogranuloma venereum. Pleuropneumonia-like organisms, which have often been incriminated in non-specific urethritis, are highly resistant to erythromycin; a number of workers, however, have recently tended to discount the role of these organisms in the causation of urethritis.

At St. Mary's Hospital, London, the author has treated 25 men with previously untreated non-specific urethritis with a deliberately low dose of erythromycin (100 mg. four times daily for 6 days, a total dose of 2·4 g.). In the majority of cases the urethral discharge promptly disappeared, but of 21 cases followed up, seven (33·3 per cent.) required re-treatment, most of these being patients whose discharge had been present for 9 days or more. Mildly toxic effects of the drug were shown by looseness of the bowels in most patients, with frank diarrhoea in three cases, while headache, pain round the heart, and heartburn were also noted.

The author regards erythromycin as clearly beneficial in the treatment of non-specific urethritis, and deduces that such action is an added argument against pleuropneumonia-like organisms being a cause of the disease.

[So many agents have been shown to cause non-specific urethritis, and such a variety of treatments has been advocated in the past few years, that it is too early to acclaim erythromycin as other than a possibly useful adjunct to the pharmacopoeia. The number of cases here reported is too small to carry conviction, and the failure rate of 33·3 per cent. does not compare favourably

with the results obtained with oxytetracycline, as described by the author in a previous communication (*British Journal of Venereal Diseases*, 1953, **29**, 225).]

Douglas J. Campbell

Arthritis with Simultaneous Suppurative Conjunctivitis and Urethritis (the so-called Reiter's Syndrome) treated with Post-insulin Light Hypoglycaemic States. [In Polish.] DAWIDOWICZ, A. (1953). *Pol. Tyg. lek.*, **8**, 1700. 14 refs.

Local Treatment of Non-Specific Urethritis with "Leukomycin" (Chloramphenicol). (Die lokale Behandlung der unspezifischen Urethritis mit Leukomycin.) SIKORSKI, H. (1954). *Z. Haut- u. GeschlKr.*, **17**, 145.

Complement-Fixation Test for Enzootic Abortion in Ewes in Non-Specific Urethritis with a Comparison of the Complement-Fixation Test for Lymphogranuloma Venereum. WILLCOX, R. R., and STAMP, J. T. (1954). *Amer. J. Syph.*, **38**, 459. 2 refs.

Topical Neomycin in the Treatment of Non-Specific Urethritis: Preliminary Report. FERGUSON, C., and CARRON, J. (1954). *Milit. Surg.*, **115**, 176.

Morphological and Biochemical Investigations of Human Pleuropneumonia-like Organisms (Micromyces). FREUNDT, E. A. (1954). *Acta path. microbiol. scand.*, **34**, fasc. 2, 127. 3 figs, 19 refs.

Selective Localization of Murine Pleuropneumonia-like Organisms in the Female Genital Tract on Intraperitoneal Injection in Mice. NELSON, J. B. (1954). *J. exp. Med.*, **100**, 311. 1 fig., 10 refs.

Special Type of Reiter's Disease. (Eine besonderer Verlaufsform des Morbus Reiter.) KUSKE, H. (1953). *Dermatologica (Basel)*, **106**, 157. 1 fig.

Complete Reiter's Syndrome. (Syndrome de Reiter complet.) SYLVESTER, L. (1953). *Union méd., Canada*, **82**, 928.

Reiter's Syndrome. (Le syndrome de Reiter.) FOREST, A. (1954). *Rev. Rhum.*, **21**, 517. Bibl.

Arthritis associated with Non-Gonococcal Urethritis. HARKNESS, A. H. (1954). *Rheumatism*, **10**, 91. 5 figs, 8 refs.

Non-Gonococcal Urethritis in the Male. PARRINO, P. S. (1954). *U.S. armed Forces med. J.*, **5**, 1249. 12 refs.

CHEMOTHERAPY

Time-Dosage Relationship in the Treatment of Treponemal Diseases with a New Combination of Three Penicillin Salts. Laboratory and Clinical Basis for Effective Therapy. REIN, C. R., BUCKWALTER, F. H., MANN, C. H., LANDY, S. E., and FLAX, S. (1954). *Amer. J. Syph.*, **38**, 408. 12 refs.

A combination of three salts of penicillin is advocated by the authors for the treatment of treponemal diseases. Each dose of 2 ml. contains in aqueous suspension 300,000 units potassium benzylpenicillin, 300,000 units N:N′-dibenzylethylenediamine di(benzylpenicillin). Higher and more prolonged blood levels were obtained with a single injection of 2 ml. than with a single injection of 4 ml. procaine penicillin in oil with 2 per cent. aluminium monostearate (PAM), although both contain 1,200,000 units of penicillin. Initial trials in syphilis, yaws, and pinta are reported as giving highly encouraging results [but no clinical details are given]. It is suggested that this type of penicillin preparation is suitable for use in those countries where patients must be treated with a single injection.

V. E. Lloyd

Oral Chloramphenicol Therapy in Venereology. (Perorale Chloramphenicol-Behandlung in der Venerologie.) DAESCHLEIN, G. (1954). *Z. Haut- u. GeschlKr.*, **17**, 141, 9 refs.

Toxic Reactions in Antibiotic Therapy. CHEYMOL, J. (1955). *Pharm. J.*, **174**, 74.

PUBLIC HEALTH AND SOCIAL ASPECTS

Decline and Fall of Syphilis in New York State, 1936–1953. II. Early Congenital Syphilis. VOUGHT, R. L., MELLO, L. DE, and AMES, W. R. (1954). *Amer. J. Syph.*, **38**, 361. 1 fig., 3 refs.

The annual attack rate for early congenital syphilis (that is, syphilis in infants of less than 1 year) in New York State has been reduced by approximately 98 per cent. since the inauguration of a syphilis control programme in 1936 and, since 1950, has become steady at about seven cases per 100,000 live births. The effectiveness of the control measures is indicated by this steady decline in the incidence of early congenital syphilis in spite of an increase in the annual attack rate for early acquired syphilis between 1943 and 1951. These measures include the obligatory reporting of cases of syphilis to the public health authorities, provision of a free serological diagnostic service to physicians, obligatory treatment of all infectious cases and infected contacts, obligatory prenatal and premarital serological tests, free

supply of penicillin for the treatment of syphilis, and education of the population and physicians. During the same period the prevalence of syphilis among parents decreased by 58 per cent. although it remains high (1·3 per cent.).

It is inferred that syphilis transmission in the State has now reached a steady level, but since this level is relatively high there is no assurance that severe outbreaks will not occur in the future, particularly if population movement is increased or control measures are lessened. *V. E. Lloyd*

Venereal Diseases in Children. KANDHARI, K. C. (1954). *Punjab. med. J.*, **4**, 68.

Social Factors affecting the Incidence of Syphilitic Psychosis : a Research Note. FRUMKIN, R. M., and BAKER, S. R. (1954). *Ohio St. med. J.*, **50**, 1042. 1 ref.

Venereal Disease Contacts of Merchant Seamen. STUART, J., and JOYCE, G. (1954). *Publ. Hlth Rep. (Wash.)*, **69**, 1197. 1 fig.

Venereal Foci in Ports. WILLCOX, R. R. (1954). *J. roy. nav. med. Serv.*, **40**, 187. 13 refs.

Venereal Disease in Agricultural Migrants—New Jersey, 1953. SHEPARD, A. C., and PAGE, W. J. (1954). *Publ. Hlth Rep. (Wash.)*, **69**, 831. 2 refs.

Gonorrhea Control Measures. A Study in New Hanover County, N.C. LEE, S. S. (1954). *Publ. Hlth Rep. (Wash.)*, **69**, 998. 2 figs, 23 refs.

Prenatal Care in New York City, 1951. BAUMGARTNER, L., GOLD, E. M., JACOBZINER, H., WALLACE, H. M., WEINER, L., SCHMIDT, W. M., and WORCESTER, J. (1954). *Publ. Hlth Rep. (Wash.)*, **69**, 937. 4 refs.

Long-term Trend and Economic Factors of Paresis in the United States. DONOHUE, J. F., and REMEIN, Q. R. (1954). *Publ. Hlth Rep. (Wash.)*, **69**, 758. 2 figs, 10 refs.

Comments on the New Law for the Control of Venereal Diseases. (Bemerkungen zum neuen Gesetz zur Bekämfung der Geschlechtskrankheiten vom 23 Juli. 1953.) KEILIG, W. (1954). *Hautarzt*, **5**, 410. 8 refs.

Environmental Factors in the Tuskegee Study of Untreated Syphilis. OLANSKY, S., SIMPSON, L., and SCHUMAN, S. H. (1954). *Publ. Hlth Rep. (Wash.)*, **69**, 691. 13 refs.

MISCELLANEOUS

Study of Ducrey's Bacillus and Recognition of a Gram-Positive Smooth Phase. DEACON, W. E., ALBRITTON, D. C., EDMUNDSON, W. F., and OLANSKY, S. (1954). *Proc. Soc. exp. Biol. (N.Y.)*, **86**, 261.

Stock cultures of Ducrey's bacillus have been cultivated at the Venereal Disease Research Laboratory, Chamblee, Georgia, on infusion agar slopes overlaid with sterile defibrinated rabbit's blood and on Eugon Agar (BBL) plates with 15 per cent. rabbit's blood incubated anaerobically and also in a partial atmosphere of CO_2. Small colonies of long-chained Gram-negative streptobacilli appeared after 72 hrs at 35° C. The colonies were 0·5 to 1·0 mm. in diameter and had a rough surface texture.

When pus from three chancroidal buboes was cultured on the same media, white dewdrop colonies 1 to 3 mm. in diameter with a surrounding zone of haemolysis were obtained on the solid medium. Microscopical examination showed slender Gram-*positive* rods with little, if any, tendency to chain formation, the average field showing only a few diplobacilli. On subculture, they rapidly reverted to the classical Gram-negative forms seen in the stock cultures, but could be maintained in the Gram-positive form by frequent subculture under anaerobic conditions. Intradermal inoculation into rabbits produced subcutaneous abscesses in which the Gram-positive rods could be demonstrated, although attempts at recovery the day after rupture of the abscesses were unsuccessful. No lesions were produced by inoculation of the old stock strains.

The authors conclude that previous descriptions of Ducrey's bacillus have dealt with a rough, non-pathogenic variant and that the smooth form of the organism has not previously been recognized. *A. E. Wilkinson*

Chemotherapy of Chancroid. Clinical Observations in 87 Cases. MENDELL, H. E., FOXWORTHY, D. L., and WORNAS, C. G. (1954). *Amer. J. Syph.*, **38**, 483. 6 refs.

A comparative study of the therapeutic efficacy of sulphadiazine, streptomycin, chlortetracycline (aureomycin), and oxytetracycline (" terramycin ") was made in the treatment of 87 cases of chancroid occurring in U.S. Air Force personnel on Okinawa. In 72 per cent. of the cases the Ducrey bacillus was isolated ; all cases were followed up for 2 months after completion of therapy. The authors point out that the diagnosis of chancroid must be made cautiously in view of the many non-chancroidal lesions involving the penis. In their view the specificity of smear examination and skin tests leaves much to be desired, and they have found the clinical characteristics of the lesion and the response to conservative therapy with potassium permanganate far

more reliable. The following treatment schedules were employed :

(1) streptomycin, 1 g. intramuscularly daily for 7 days (22 cases) ;

(2) sulphadiazine, 1 g. four times a day for 7 days (thirteen cases) ;

(3) streptomycin, as above for 5 days, followed by sulphadiazine for a further 5 days (twelve cases) ;

(4) aureomycin, 250 mg. four times a day for 4 days (twenty cases) ;

(5) oxytetracycline, 250 mg. four times a day for 4 days (twenty cases).

Results showed that all four substances were equally effective in the chemotherapy of chancroid in the dosages indicated. Sulphadiazine and streptomycin in combination appeared to exert some synergistic effect and shortened the healing period of the ulcers. Since neither of these drugs has any effect on *Treponema pallidum* they are to be preferred when a syphilitic infection has not been ruled out, in order not to mask the presence of syphilis. *Neville Mascall*

Cat-Scratch Disease. Report of 160 Cases. DANIELS, W. B., and MACMURRAY, F. G. (1954). *J. Amer. med. Ass.*, **154,** 1247. 2 figs, 15 refs.

The authors have analysed 160 cases of cat-scratch disease, 27 of which they saw personally. The majority of the patients were young, over one-third being under the age of 10 years. In twelve instances there were household epidemics involving 26 victims, mostly children.

In 148 of the cases a history of contact with cats was obtained ; of these 148 patients 93 had been scratched by the cat, but in a further 38 cases no such history could be obtained. The primary lesion, usually a scratch or papule, persisted for several weeks, and the duration from the initial scratch to the development of the primary lesion was 3 to 14 days. Within a further 7 days enlargement of lymph nodes was observed, which might subside in 2 weeks or still be present 2 years or more afterwards. Suppurative lymphadenitis occurred in 47 patients. Constitutional symptoms, present in 80 per cent. of the patients, were those associated with a general infection, including fever, chill, headache, anorexia, and malaise. Evanescent rashes were noted in eleven patients, and two others developed an eruption of erythema nodosum type on the legs. In all the patients there was a positive reaction to an intradermal test with cat-scratch disease antigen.

The more unusual forms of the disease are discussed with reference to individual cases. Treatment is briefly mentioned ; the authors believe that the newer antibiotics may be helpful, but their usefulness is difficult to assess because the disease is self-limiting.

T. Anderson

Treatment of Chancroid Infection. A Report of 25 Cases. PAPARELLA, J. A. (1954). *Amer. J. Syph.*, **38,** 345. 2 figs, 3 refs.

The results of chemotherapy in 25 proved cases of chancroid infection are reported. In all the cases smears were cultured, *Haemophilus ducreyi* being isolated in seventeen instances. Bubo formation was seen in eleven cases, including five in which culture was negative. None of the patients developed syphilis.

Aureomycin alone was given to 72 of the patients, a combination of aureomycin and sulphadiazine to five, streptomycin and sulphadiazine to five, aureomycin and streptomycin to two, and streptomycin alone to one. The dosage of aureomycin was 1 g. initially and 250 to 500 mg. every 6 hrs for 3 to 5 days.

Satisfactory results were obtained with aureomycin alone, no added benefit being observed when aureomycin in combination with other antibiotics or with sulphadiazine was given. Ulcers healed in 4 to 7 days after the start of treatment, adenopathy disappearing after a somewhat longer period.

The author admits that aureomycin may mask the early signs of syphilis or lengthen the incubation period, and suggests that serological tests for syphilis should be carried out for 3 to 5 months after treatment with aureomycin ceases. [This is an easy matter in military practice, but is a considerable drawback to the use of aureomycin in civilian practice or where supervision for 3 to 5 months is not possible.] *Robert Lees*

Treponematosis Control Program of the World Health Organization. The Treatment of Yaws with Benzathine Penicillin G. GRIN, E. I., GUTHE, T., PAYANANDHA, LA-ONG, D'MELLO, J. M. F., and SWAROOP, A. S. (1954). *Amer. J. Syph.*, **38,** 397. 2 figs, 26 refs.

Advantages and Dangers of Local Oral and Intravaginal Penicillin Therapy. (Vorzüge und Gefahren der lokalen oralen und intravaginalen Penicillintherapie.) GRASREINER, W. (1954). *Derm. Wschr.*, **130,** 749. 3 figs, 23 refs.

Critical Remarks on the Use of Penicillin in Prophylaxis against Blennorrhoea in the Newborn. (Kritisches zur Penicillin-Blennorrhoeprophylaxe der Neugeborenen.) SCHULTZE, K. W., and HARTMANN, A. (1954). *Dtsch. med. Wschr.*, **79,** 1631. 13 refs.

Multiple Lymphogranulomatosis Venereum of the Jejunum. (Lymphogranulomatose vénérienne multiple de jéjunum.) DA COSTA, BRUNO (1954). *Arch. Mal. Appar. dig.*, **43,** 686. 10 figs, 37 refs.

Comparative Study of the Bacterial Flora of the Conjunctiva in the Newborn and of the Cervix Uteri of the Mother, with an Investigation of the Actions of Silver Nitrate and of Penicillin on the Conjunctival Flora. (Estudio comparativo de la flora bacteriana de las conjunctivas de recién nacidos y de la del cuello uterino de sus madres, y de la acción del nitrato de plata y de la penicilinâ respectivamente sobre la flora conjuntival del recién nacido.) BARRERE, L. E. (1954). *An. Fac. Med. Lima*, **37**, 62.

Epidemiology, Aetiology and Prophylaxis of Lymphogranuloma Inguinale. [In English.] FAVRE, M., and HELLERSTROM, S. (1954). *Acta derm.-venereol. (Stockh.)*, **34**, 1. 19 figs, bibl.

Possibility of Eradication of Congenital Syphilis. (Es posible erradicar la sifilis congénita.) GIFFORD, A. J., WRIGHT, J. J., SHEPS, C. G., and TAYLOR, E. E. (1954). *Bol. Ofic. sanit. pan-amer.*, **37**, 193. 2 refs.

Pre-Columbian Ceramic Vases of the Ancient Nazca Culture, showing possible Gummata of the Leg. WEISS P., and GOLDMAN, L. (1954). *Amer. J. Syph.*, **38**, 145. 1 fig., 6 refs.

History of the Spread of Syphilis in Africa from Contemporary Travellers' Records. (Die Geschichte der Verbreitung der Syphilis in Afrika nach zeitgenossischen Reiseberichten.) SPRINGER, A. (1954). *Hautarzt*, **5**, 227. Bibl.